

REMARKS

In accordance with the present invention, there is provided three-dimensional structural information related to farnesoid X receptors (FXR). In a particular aspect, there are provided compositions comprising the ligand binding domain of FXR in crystalline form (as described, for example, by structure coordinates obtained by X-ray crystallography), and computers utilizing such structure coordinates to provide information regarding the ligand binding domain of FXRs and ligands therefor. In another aspect, the invention provides methods of utilizing such structure coordinates for modeling known and putative FXR ligands.

By the present communication, claims 14, 19 and 31 have been amended to define Applicants' invention with greater particularity. No new matter is introduced by the subject amendments as the amended claim language is fully supported by the specification and original claims. Upon entry of the amendments submitted herewith, claims 1-3, 6-8, 10-15, 18-22 and 31-33 will remain pending in the application, with claims 14-15 and 18-20 under active prosecution, and claims 1-3, 6-8, 10-13, 21-22 and 31-33 withdrawn from consideration, subject to a request for rejoinder thereof. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination, is presented in the Listing of Claims, beginning on page 2 of this communication, with an appropriate status identifier for each claim.

The requirement for restriction of claims 1-3, 6-8, 10-15, 18-22 and 31-33 under 35 USC § 121, as allegedly being drawn to multiple inventions, is respectfully traversed.

Specifically, Applicants respectfully disagree with the Examiner's assertion that the claims allegedly "do not relate to a single general inventive concept . . ." (see page 3, lines 1-2 of the Office Action). Contrary to the Examiner's assertion, it is respectfully submitted that all of the claims are related to one another—the Group I claims are directed to a composition comprising the ligand binding domain of farnesoid X receptor (FXR) in crystalline form; the

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Group II claims are drawn to a computer for producing a three-dimensional representation of an FXR utilizing data obtained from the crystalline form described in Group I; the Group III claims are directed to a method of predicting a molecule capable of binding to an FXR molecule according to the composition of Group I; the Group IV claims are drawn to a compound identified by the method of Group III; and the Group V claims are directed to a method for determining whether a test compound (e.g., a compound identified by the methods of Group III) is capable of binding to FXR. Therefore, a thorough search of any one group would, of necessity, require a search of the other, related group(s). Accordingly, the claims of the present application can all be prosecuted in one case.

Moreover, upon a finding that, for example, the Group III claims (directed to a method of predicting a molecule capable of binding to an FXR molecule) are patentable, the Group V claims, which provide for the further characterization of compounds identified by the Group III methods, should similarly be found to be patentable.

Accordingly, reconsideration and withdrawal of the requirement for restriction are respectfully requested.

Alternatively, it is respectfully requested that the claims be re-grouped into fewer groups. For example, it is respectfully submitted that the Group III and Group V claims can readily prosecuted in a single case.

However, in order to be fully responsive, Applicants hereby elect the Group III claims with traverse (i.e., claims 14-15 and 18-20) for prosecution on the merits. Non-elected claims 1-3, 6-8, 10-13, 21-22 and 31-33 are retained in the application pending final disposition of the elected claims, and pending possible rejoinder thereof with the elected claims.

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CONCLUSION

In view of the above amendments and remarks, prompt and favorable action on all claims are respectfully requested. In the event any matters remain to be resolved in view of this communication, the Examiner is encouraged to call the undersigned so that a prompt disposition of this application can be achieved.

Respectfully submitted,

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